

## 101.9 - High Temperature Alloys (chip and disk forms)

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	866	867	1230	1246	1247	1250	C2400	C2401
Description		Ni-Fe-Cr Alloy UNS N08825 (chip form)	High-Temperature Alloy A286	Incloy® 800	Ni-Fe-Cr Alloy UNS N08825 (disk form)	High Temp. Alloy Fe-Ni-Co	High-Alloy Steel ACI (17/4 PH)	HA Steel (ACI-C-4M-Cu)
Unit of Issue	(100 g)	(100 g)	(disk)	(disk)	(disk)	(disk)	(disk)	(disk)

Elemental Composition (mass fraction in %) unless noted with an asterisk (\*) for mg/kg.

Aluminum (Al)	0.29	0.0630	0.249	0.30	0.0630	0.99		
Antimony (Sb)		(4*)			(4*)			
Arsenic (As)	25.7*		(<0.005)		25.7*			
Bismuth (Bi)		(<0.5*)	(<0.0001)		(<0.5*)			
Boron (B)	<0.001	19.8*	0.00519	<0.001	19.8*	0.0078	(0.0004)	(0.0004)
Carbon (C)	0.082	0.0212	0.0428	0.082	0.0212	0.022	0.036	0.062
Chromium (Cr)	20.1	23.375	14.65	20.1	23.375	0.077	17.06	25.1
Cobalt (Co)	0.075	0.092	0.151	0.076	0.092	16.1	0.10	0.19
Copper (Cu)	0.49	1.767	0.137	0.49	1.767	0.022	2.63	3.17
Gallium (Ga)		112*			112*			
Iron (Fe)	46.1	26.564	55.6	46.2	26.564	40.5		
Lead (Pb)		0.340*	(<0.0003)		0.340*			
Magnesium (Mg)		(<10*)			(<10*)			
Manganese (Mn)	0.92	0.3806	0.652	0.91	0.3806	0.052	0.71	1.03
Molybdenum (Mo)	0.36	2.723	1.15	0.36	2.723	0.014	0.23	2.13

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Nickel (Ni)	30.8	43.47	24.08	30.8	43.47	37.78	4.07	5.46
Niobium (Nb)	(0.09)	0.458	0.067	(0.09)	0.458	2.99	0.15	(0.002)
Nitrogen (N)		170*	(0.003)		170*			
Oxygen (O)		50*			50*			
Phosphorus (P)	0.017	0.0203	0.0239	0.018	0.0203	<0.003	0.013	0.025

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<b>Selenium (Se)</b>		<i>(&lt;6*)</i>		<b>(&lt;6*)</b>				
<b>Silicon (Si)</b>	0.17	0.3234	0.411	0.18	0.3234	0.097	0.61	0.74
<b>Silver (Ag)</b>		<i>0.25*</i>		<i>(0.000025)</i>		<i>0.25*</i>		
<b>Sulfur (S)</b>	0.001	<i>17*</i>	0.00095	0.001	<i>17*</i>	0.0025	0.003	0.027
<b>Tantalum (Ta)</b>		<i>(&lt;10*)</i>		<i>(&lt;0.001)</i>		<i>(&lt;10*)</i>		
<b>Tellurium (Te)</b>		<i>(&lt;1*)</i>		<i>(&lt;1*)</i>				
<b>Thallium (Tl)</b>		<i>0.00223*</i>		<i>0.00223*</i>				
<b>Tin (Sn)</b>		<i>(30*)</i>		<i>(&lt;0.033)</i>		<i>(30*)</i>		
<b>Titanium (Ti)</b>	0.31	0.755	2.18	0.32	0.755	1.48		
<b>Tungsten (W)</b>		<i>56*</i>		<i>0.0695</i>		<i>56*</i>		
<b>Vanadium (V)</b>		0.0478		0.229		0.0478		

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**Zinc (Zn)** (*<0.018*)

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